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NOTICE OF ALLOWANCE AND FEE(S) DUE

32864 7590 10/09/2009

FISH & RICHARDSON, P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER

ZEE, EDWARD

ART UNIT

PAPER NUMBER

2435

DATE MAILED: 10/09/2009

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|------------------------------|------------------|
| 10/720,447 | 11/25/2003 | Tom Cheng | 13914-033001 / 2003P00877 | 4999 |

TITLE OF INVENTION: OBJECT-BASED ACCESS CONTROL

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 01/11/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

32864 7590 10/09/2009

FISH & RICHARDSON, P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

| |
|--------------------|
| (Depositor's name) |
| (Signature) |
| (Date) |

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| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 01/11/2010 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|-------------|----------|----------------|
| ZEE, EDWARD | 2435 | 713-167000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| | | | ART UNIT | PAPER NUMBER |
| | | | 2435 | |
| DATE MAILED: 10/09/2009 | | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 854 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 854 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

| | | | |
|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/720,447 | CHENG ET AL. | |
| | Examiner | Art Unit | |
| | EDWARD ZEE | 2435 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendments filed on 09/15/09 and the interview conducted on 09/25/09.
2. ☒ The allowed claim(s) is/are 1-4,7-11,13-16,19 and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date ____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other ____. |
|--|--|

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. As per MPEP 713.04, a separate interview summary form is not provided as the substance of the interview has been summarized herein.

Authorization for this examiner's amendment was given in a telephone interview with Richard Soderberg (No. 43,352) on 09/25/09.

The application has been amended as follows:

- **Please amend Claims 1, 8 and 13 as follows:**

1. A computer-readable medium included in a storage device and having embodied thereon a computer program configured to determine whether a user is permitted to access requested attributes of a business object when executing a software application of an enterprise information technology system, the medium storing one or more code segments configured to:

use a permission object to determine whether a user associated with an entry in user information is permitted to access requested attributes of a data object associated with a data object type, wherein:

the entry in the user information associates the user with a user affiliation,

the permission object identifies:

a user affiliation to which the permission object applies,

a data object type to which the permission object applies such that the data object type identified by the permission object is associated with multiple attributes and each data object having the data object type identified by the permission object is associated with the multiple attributes,

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a permission attribute identifying at least one of the multiple attributes,
a permission value for the permission attribute, and
an attribute access group having a subset of attributes of the multiple attributes,
the subset of attributes being fewer than all of the multiple attributes, wherein the
permission object is configured to ~~use~~ control access with the permission attribute when
the permission attribute is included in the attribute access group subset of attributes and
to ~~use~~ control access with the permission attribute when the permission attribute is not
included in the attribute access group subset of attributes,
wherein upon determination that:

(1) the user affiliation that is associated with the user is the same user
affiliation as the user affiliation to which the permission object applies,

(2) the data object type of the data object is the same as the data object
type to which the permission object applies,

(3) a value of the permission attribute associated with the data object is
consistent with the permission value for the permission attribute, and

(4) at least one of the requested attributes of the data object corresponds to
an attribute ~~[[of]~~included in the attribute access group of the permission object,

the user is permitted to access any of the requested attributes indicated by the
~~attribute access group subset of attributes~~ and not permitted to access any of the requested
attributes ~~not associated with~~ indicated by the attribute access group subset of attributes, and
wherein otherwise the user is denied access to all the requested attributes.

8. A method for determining whether a user is permitted to access requested attributes of
a business object when executing a software application of an enterprise information technology
system, the method comprising:

using a permission object included in a storage ~~[[object]]~~device to determine whether a
user associated with an entry in user information is permitted to access requested attributes of a
data object associated with a data object type, wherein:

the entry in the user information associates the user with a user affiliation,

the permission object identifies:

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a user affiliation to which the permission object applies,
a data object type to which the permission object applies such that the data object type identified by the permission object is associated with multiple attributes and each data object having the data object type identified by the permission object is associated with the multiple attributes,
a permission attribute identifying at least one of the multiple attributes,
a permission value for the permission attribute, and
an attribute access group having a subset of attributes of the multiple attributes, the subset of attributes being fewer than all of the multiple attributes, wherein the permission object is configured to ~~use~~ control access with the permission attribute when the permission attribute is included in the attribute access group subset of attributes and to ~~use~~ control access with the permission attribute when the permission attribute is not included in the attribute access group subset of attributes,
wherein upon determination by a processor that

- (1) the user affiliation that is associated with the user is the same user affiliation as the user affiliation to which the permission object applies,
- (2) the data object type of the data object is the same as the data object type to which the permission object applies,
- (3) a value of the permission attribute associated with the data object is consistent with the permission value for the permission attribute, and
- (4) at least one of the requested attributes of the data object corresponds to an attribute ~~[[of]]~~ included in the attribute access group of the permission object,

the user is permitted ~~[[using]]~~ by the processor to access any of the requested attributes indicated by the ~~attribute access group subset of attributes~~, and wherein otherwise the user is denied access to all the requested attributes.

13. (Currently Amended) A computer system for determining whether a user is permitted to access requested attributes of a data object when executing a software application of an enterprise information technology system, the system tangibly embodied and comprising:
a processor;

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a storage device including a data repository for access control information for software having data objects, each data object

(1) being associated with a data object type having multiple attributes,

(2) having the multiple attributes of the data object type to which the data object is associated, and

(3) having a value associated with each attribute of the multiple attributes,

the data repository including:

user information that associates a user affiliation with a user of the software application, and

permission information having multiple permission objects, each permission object identifying: a user affiliation to which the permission object applies, a data object type to which the permission object applies, a permission attribute identifying one of the multiple attributes, a permission value for the permission attribute, and an attribute access group having a subset of attributes of the multiple attributes, the subset of attributes being fewer than all of the multiple attributes, wherein the permission object is configured to use control access with the permission attribute when the permission attribute is included in the ~~attribute access group~~ subset of attributes and to use control access with the permission attribute when the permission attribute is not included in the ~~attribute access group~~ subset of attributes; and

an executable software module executed by the processor that causes:

a comparison of a value of a requested attribute of the multiple attributes of a data object such that the attribute of the multiple attributes corresponds to the permission attribute of a permission object with the permission value of the permission object,

a comparison of at least one attribute of the data object that the user seeks to access such that the attribute sought to be accessed corresponds to an attribute ~~included in~~ the attribute access group of the permission object, and

an indication that a user is permitted to access any of the requested attributes indicated by the ~~attribute access group~~ subset of attributes and not permitted to access any

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of the requested attributes not ~~associated with~~ indicated by the attribute access group subset of attributes when

(1) the value of the attribute of the data object is consistent with the permission value of the permission object, and

(2) at least one of the requested attributes of the data object corresponds to an attribute included in the attribute access group of the permission object, and wherein otherwise the user is denied access to all the requested attributes.

3. The following is an examiner's statement of reasons for allowance: The arguments submitted by the Applicant on 09/15/09 have been considered and are persuasive, in particular those found on pages 13 and 14 of the remarks. Therefore, Claims 1-4, 7-11, 13-16, 19 and 20 are deemed allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWARD ZEE whose telephone number is (571)270-1686. The examiner can normally be reached on Monday through Thursday 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EZ

September 27, 2009

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435